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Committee to Inquire into the Origin and
Causes Which Gave A Rise to the Late Epidemic
in Augusta, Ga.

REPORT

ON THE

ORIGIN AND CAUSE

OF

THE LATE EPIDEMIC,

IN AUGUSTA, GA.

SUBMITTED TO A MEETING OF THE PHYSICIANS
OF AUGUSTA,

ON THE

10TH OF DECEMBER, 1839.

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AUGUSTA, GA.

BROWNE, CUSHNEY & M'CAFFERTY,

Book and Job Printers.

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REPORT

AT a meeting of the Physicians of Augusta, held on the 13th November, 1839, Dr. A. CUNNINGHAM, was called to the Chair, and Dr. PAUL F. EVE, appointed Secretary.

The following resolution was offered by Dr. F. M. ROBERTSON, and unanimously adopted, viz.

Resolved, That a Committee of three be appointed, to inquire into the origin and causes which gave rise to the late epidemic in Augusta. Doctors F. M. ROBERTSON, I. P. GARVIN, and P. F. EVE, were appointed on that Committee.

The meeting then adjourned, to meet again at the call of the Committee.

The adjourned meeting took place on the 10th December, Dr. A. CUNNINGHAM in the chair, and Dr. P. F. EVE, Secretary.

Dr. F. M. ROBERTSON, the Chairman of the Committee, then read the following Report and Resolutions, which were unanimously adopted.

On motion, it was *Resolved*, That the Report and accompanying documents, be published in pamphlet form.

The meeting then adjourned *sine die*.

REPORT.

In entering upon the discharge of the duties assigned to your Committee, we shall divide the subject into the following questions; and, as they are of vital importance to our city, give each one a fair, deliberate, and candid consideration.

I. Was the cause of the late Epidemic introduced into our city from foreign sources?

II. Did it arise from local causes; and, if so, what were those causes?

Those who are of the opinion that the disease was imported among us, are of three classes—The first believe it to have been introduced, and spread, altogether, by contagion. The second, assume the ground that our atmosphere was in a vitiated state, and that the simple introduction of a case imparted an epidemic constitution to this vitiated atmosphere, and thus spread the disease. That is, that the inflammable matter, originating from local causes, was in our atmosphere, and the imported cases only acted as a torch, and produced the explosion. The third class imagine it to have been introduced by some West India fruit, brought to our city in a decayed condition, about the time the Epidemic broke out.

As each of these modes of accounting for its introduction, seem plausible to many, and are well calculated to alarm those, whose pursuits in life, and limited opportunities for gaining correct information, render it impossible for them to procure authentic facts, upon which alone correct opinions can be based, each supposition will be taken up, separately, and examined in detail.

Although the nature of the late Epidemic is not included in the investigations assigned to your Committee, yet we deem it important to say, that the impression, that it was Yellow Fever; or, what is termed in Charleston, "*Stranger's Fever*," generally prevails among our citizens; and that the medical practitioners of the city are, almost, unanimous in this opinion.

There were three cases of Yellow Fever in our city, in the month of July, occurring in individuals brought from Charleston, S. C. An Irish woman and her daughter arrived from Charleston on the 27th July—both were unwell on the evening of their arrival—One of your Committee saw them on the 29th, and the mother died with yellow skin, black vomit, and the other usual symptoms of Yellow Fever, on the 30th; and the daughter, who was immediately removed to the extreme western part of the city, recovered. These cases occurred on the north side of Broad-street, opposite the upper market, and were visited by numerous individuals who resided in the neighborhood. The third was a gentleman, who arrived, at the Eagle & Phoenix Hotel sick, on the 31st July. This case was attended by Dr. CUNNINGHAM, who states it to have borne all the marks of Yellow Fever, though the patient recovered, without either yellow skin or black vomit. Your Committee, after minute examination, have been unable to ascertain that any other cases were introduced into the city, before or since the three just named. It was stated that a case had been taken from Mrs. Pettis' boarding house, near Bridge Row, to the City Hospital. Upon strict examination, your Committee find that this is entirely a mistake, growing out of the following circumstance: A man, sick of ordinary bilious fever, was brought from one of the steamboats, that had been detained some time on a bar in consequence of the low state of the river, and as Mrs. Pettis could not accommodate him, he was taken to the City Hospital. This case was seen by Dr. J. A. EVE, and the Chairman of this Committee.

Having stated the time at which the only case of Yellow Fever, brought from Charleston, occurred, and their localities, your Committee will now draw your attention to the period at which the first cases of the Epidemic were observed among us. This, we feel assured, will be sufficient to convince all, who

believe in the contagiousness of Yellow Fever, that it was not introduced into our city from Charleston.

The attention of a community is seldom drawn to the existence of an Epidemic until its general prevalence, or the mortality, reaches a point sufficient to excite general alarm; and hence it is, that the first cases that occur, are usually entirely overlooked, or merely, considered of a sporadic nature. The early cases are, also, of a much milder character than those that occur after the cause has acquired its maximum degree of virulence. These early cases should not, however, be overlooked, as we shall see, in the course of our investigations, that they form an important link in the chain of cause and effect.

About the 8th of June, several severe cases of Fever occurred in Mrs. Thomas Gardner's family, at her residence, fronting on the river bank and Lincoln-street. They were considered, at the time, as cases of ordinary remittent fever. But, as the family had, in previous seasons, been exempt from diseases of this nature, at so early a period, and as facts, in another part of this Report, will clearly show their origin, your Committee feel no hesitation in stating the belief that these cases arose from the same cause,—though in a less virulent state,—that produced the prevailing Epidemic. On the 5th July, John McGuire, who had labored in the upper "Trash Wharf," was taken sick and remained violently ill for ten days. His physician, and those who visited him, consider his case one of the same nature as the prevailing epidemic. On the same day, a son of Mrs. Bush, who resided nearly midway between Lincoln and Houston sts. on the north side of Broad street, was taken with fever, and died, with yellow skin, and (as his mother states) passing from his bowels large quantities of matter resembling coffee grounds, on the 14th. She further states that numerous purple blotches appeared on him soon after his death. His attending physician, Dr. J. A. EVE, concurs in the opinion that it was a case bearing the marks of the late Epidemic. On the 7th July, a negro named Sophia, was taken sick of fever, at the house on Broad-street, next below Augustine Frederick's. On the same day, Isaiah Burton was also taken, at his residence on the south side of Reynold-street, just below Centre-street. Both these cases are stated by Dr. CUNNINGHAM to have been decided cases of the pre-

vailing fever. The same physician states that Mrs. A. Sibley was taken violently ill on the 16th of the same month—no other members of the family were attacked until the 25th. Mr. Sibley's residence is on the north side Broad-street, just below the lower market.

Mr. Tutt's daughter, at the corner of Telfair and Centre-streets, was seized on the 14th of July, and died, with all the marks of the prevailing fever, on the 24th. Mr. Bottom's child on the south-side of Broad-street, a few doors above the lower market, sickened, on the 16th of the same month, and died on the 18th. This was pronounced by Dr. CUNNINGHAM, the attending physician, to be a decided and violent case of the prevailing fever. A negro boy of Mr. Wagner's, on the south-side of Broad-street, a few doors below the lower market, was attacked with the prevailing fever on the 23d day of July. Henry, a child belonging to Mr. Dalby, on Green-street, just above Lincoln-street, was taken with the fever on the 26th of July. Numerous other cases, forming a regular connection, could be mentioned, but your Committee deem those, already named, quite sufficient. From this time the disease became general along Reynold-street, above and below Centre-street, extending to Broad-street, in the neighborhood of the Eagle & Phoenix Hotel, and the lower market. On the 19th of August, when the Physicians were called together, by invitation of his Honor the Mayor, on comparing notes, it was found that over *forty* cases had been under treatment within the two weeks, immediately, preceding the day on which the meeting was held. If we now make an allowance for the time the morbid cause was at work, in the systems of the individuals, before it produced an open irruption of the disease, it will, at once, be perceived, that the cases which occurred, even between the 1st and 19th of August, could not be traced to the imported cases of Yellow Fever.

After having thus given the date of the commencement of the prevailing fever, the concurrent testimony of the attending physicians, and the period at which the cases of Yellow Fever were introduced from Charleston, and their different localities, we feel satisfied that further argument is unnecessary. That the epidemic had commenced, fairly and decidedly, before the

introduction of a single case of disease from Charleston, must be evident to every unprejudiced observer.

Moreover, if the disease had been introduced by contagion, it certainly should have been governed, after its introduction, by the same laws that regulate the spread of contagious affections. But, on the contrary, the prevailing fever, certainly, exhibited none of the phenomena that ordinarily accompany the spread of contagious diseases. We find it commencing on the same day, and almost at the same hour, in different houses, at the time attracting no unusual degree of attention. So insidious, indeed, had been its progress, that on the 19th of August, the day of general alarm, over forty cases had already occurred. For some days its ravages were confined to the vicinity of the Lower Market, on Broad and Centre-streets, and in the neighborhood of the Eagle & Phoenix Hotel, but it gradually and slowly, extended to the other parts of the city.

The fact of a number of persons having been taken with the disease, who nursed the sick in what was termed the infected district, has been urged, by some, in favor of contagion. As an offset to this, your Committee would bring forward the fact, that no one was taken with the disease, who nursed the sick, who were removed out of the infected district, or to the Sand Hills, and other parts of the country. This we consider an unanswerable argument against the contagious nature of the prevailing fever. If the disease was contagious, how could a removal of the sick, half a mile or more, from the infected part of the city, deprive it of its contagious properties? On the grounds of contagion this cannot be explained; but, considering the disease of miasmatic origin, the fact is easily accounted for. Those who nursed the sick in the infected district, were exposed—and that too at the worst period of the twenty-four hours—to the same miasmatic exhalations that had produced the disease in the patient. When the patient was removed, however, to an atmosphere free from the malarial poison, the nurses escaped, though they were exposed to the exhalations from the diseased body of the patient, who often expired in the most frightful agonies, with black vomit, hemorrhage and all the evidences of extreme putridity. Not a single instance can be found, in which an individual, who had not been exposed to the

contaminated atmosphere of the city, took the disease after communicating with those who were removed from the city, laboring under it, or who took it after their removal. There were instances, in which persons slept, night after night, with those who had the disease on the Sand Hills, and yet they escaped entirely. Several instances occurred, of persons being attacked with the prevailing fever, who had confined themselves to their houses, and had neither seen, nor held any intercourse whatever with the sick. Your Committee will here relate one remarkable instance. Norris, a criminal, under sentence of death, who was confined in jail, was taken with the prevailing fever on the 12th of September, and died on the 10th day after his attack, with black vomit and hemorrhage. He was immured in a cell; no person had communicated with him, previous to his attack, but the Jailor and Turnkey, and *he was the first person in the prison who took the disease.*

After the first black frost, on the 8th of November, great numbers of the citizens returned permanently to the city. If the disease had been spread by contagion, why did it not extend to them, from the numerous cases that were then under treatment? These facts are unanswerable, and sufficient, in the opinion of your Committee, to convince any reasoning individual, that the prevailing fever was neither introduced nor spread among us by contagion.

But again, if the disease was introduced by contagion, whence did it come? Charleston is pointed to as the most natural source, as the Yellow Fever existed there at the time the prevailing fever broke out here. We have shown most conclusively, that the Epidemic had commenced before the introduction of a single case of fever from Charleston; but, to remove all doubts upon this point, your Committee will offer satisfactory proof, that the fever which prevailed there during the past summer, was neither introduced nor spread by contagion. And if so, we ask how could its nature be changed by a transfer to Augusta? Moreover, as our city is exposed to the introduction of cases of Yellow Fever annually, from the sea coast, your Committee will, further, add the opinions of some of the most eminent writers, upon the subject of the contagiousness of Yellow Fever; all of which tend directly to show the erroneousness of the doctrine.

The following extract is from "A Report of the history and causes of the Stranger's or Yellow Fever of Charleston," read before the Board of Health, October 18th, 1839, by Dr. T. Y. SIMONS, Chairman of the Board, who is also the Port Physician. "The fever having occurred so early in the season, and so soon after its occurrence on board the *Burmah*, created suspicion of contagion in the minds of some, but I could not, upon the minutest investigation, come to that conclusion; and a Committee, appointed by the Medical Society, after making a minute and thorough investigation, came to the conclusion, that the fever was not introduced by the *Burmah*, or by contagion, but was produced by the peculiar condition of our atmosphere; in other words was endemic, and arose from causes among us."

The Committee here alluded to by Dr. SIMONS, was composed of Doctors A. LOPEZ, JAMES MOULTRIE, E. GEDDINGS, I. M. CAMPBELL, HENRY WINTHROP, and J. E. HOLBROOK, the President of the Society. The following is from the report of this Committee:

"Your Committee are therefore of opinion, that the Yellow Fever, which has prevailed and still continues this season, has its origin, not from contagion derivable from those cases imported in the ship *Burmah*, on the 6th of June last, but from local and general causes."

The subjoined correspondence, between Professor GEDDINGS, one of the most acute observers, and learned members of our profession, and the Chairman of this Committee, also confirms the view herein expressed. In answer to the third query, "Do you consider the disease (Yellow Fever) as it prevailed in your city, during the present summer, to have exhibited, in any degree, a contagious nature?" he says, "I have never, either in the Epidemic of the present summer, or in any of those which preceded it, observed a single fact or circumstance favorable to the belief in any contagious property. On the contrary, I have witnessed the most free and unlimited intercourse, between the sick, and those who might be considered subjects for the disease, without the latter being attacked."

If we examine minutely the history of Yellow Fever, wherever it has prevailed, we shall find that it invariably obeys most of the laws which govern other miasmatic diseases. It has

usually commenced its ravages during the heat of summer, increased in violence as the season advanced, and ceased as soon as the temperature ranged below a given point, or after a severe frost. Contagious diseases conform to none of these laws.—What climate, what temperature, or what season can arrest the ravages of small pox for instance.

“In considering Yellow Fever as produced by malaria,” observes Bancroft, “we can readily understand why (like other malarial fevers) it should cease when the atmosphere no longer retains sufficient heat for its generation and exhalation; but this diminution of temperature could not extinguish a fever subsisting by contagion. Frost has no access to the apartments and still less to the bodies, of persons under Yellow Fever.—Upon its occurrence, fires, with additional bed clothes, secure them from its approach, and from even the smallest interruption to those morbid actions, or secretions, by which contagion is supposed to be generated; and therefore, if contagion were the cause of Yellow Fever, new cases of it ought to occur during winter, especially as we are not acquainted with any febrile contagion, which is liable to be rendered inactive, merely by such a reduction of temperature, as is sufficient to stop the progress of Yellow Fever.”

The doctrine of contagion has agitated the commercial, as well as, the medical world for centuries. To speak of the subject, in all its bearings, would occupy volumes. Your Committee will therefore, confine their remarks to some facts connected with the prevalence of Yellow Fever, in the different cities and towns of the United States.

If the Yellow Fever was capable of being spread by importation, Charleston, S. C. is certainly as much, if not more, exposed, than any city in the United States, in consequence of its intimate commercial relations with the different West India ports. Dr. RAMSEY, the eminent physician and celebrated historian, in speaking of this disease as it occurred the preceding season, as far back as 1799, says, “We have no reason to believe that the Yellow Fever was imported among us, or communicated by contagion—Strangers who left the city, and afterwards sickened and died in the country, were not the occasion of death, or even disease, to those who attended them in their last

illness." The same individual, in a letter to Dr. MILLER, of New York, dated 18th Nov. 1800, observes, "The disputes about the origin of Yellow Fever, which have agitated the Northern States, have never existed in Charleston. There is but *one* opinion among the *physicians* and *inhabitants*, and that is, that the disease was *neither imported nor contagious*. This was the *unanimous sentiment* of the Medical Society, who, in pursuance of it, gave their opinion to the Government last summer, that the rigid enforcement of the quarantine laws was by no means necessary, on account of Yellow Fever." Certainly, if any city had reason to dread the consequences of contagion, it was Charleston; but we find in 1800, her medical men and citizens, generally, disavowing any belief in such a doctrine; nor do we hear of these facts being contradicted, by any authentic statements, even to the present day.

The Yellow Fever has frequently prevailed in Norfolk, Va. In relation to its existence in this city, your Committee will simply give the following certificate, from Drs. TAYLOR, HANSFORD, SELDEN and WITHERHEAD, dated 12th October, 1801—"We do hereby certify, that the malignant Yellow Fever, which prevailed with violence for some time past, has now nearly ceased, and that the health of the town appears to be improving daily. *We know of no instance in which the disease has been communicated by contagion.*"

The following is an extract, from Bancroft on Fever, relating to the Yellow Fever as it prevailed in Baltimore, in the summer of 1800. The Faculty of Medicine of that city, in a report to the Mayor, say, "after the most *scrutinizing* investigation, the Faculty have found no proof, or even cause of suspicion, that the Fever which lately so unhappily afflicted our city, was derived from foreign causes;" and, in support of this declaration, they give a particular account of thirteen cases, in which the disease first appeared; all of whom were in persons who had been exposed to marsh miasmata, but had not communicated with any vessel "engaged in foreign commerce;" and were attacked at such distances from each other, as to preclude the possibility of any one of them having derived it from the other. They proceed—"the *gradual* manner in which this disease becomes epidemic, is an additional proof that it is not derived

from foreign sources;" and after describing the milder cases, which occur at the *beginning, before the causes acquire full force*, they add, "if this disease were imported, the prominent features would develop themselves at *first*, and these precursors, and more mild grades of the disease, could not effect thousands on shore, who never had any communication with vessels from the West Indies, or any diseased body."

Dr. RUSH was long of the opinion, that Yellow Fever was contagious; but, from the frequent opportunities he had of investigating facts, connected with the existence and spread of the disease in Philadelphia, he finally became fully convinced of the erroneousness of the doctrine. In a letter to Dr. MILLER, he states in its conclusion, "You will perceive, from the facts and reasonings contained in this letter, that I have relinquished the opinion published in my account of the Yellow Fever, in the years 1793, 1794 and 1797, respecting its contagious nature. I was misled by Dr. LINING, and several West India writers, &c.—I am aware of the *influence which such changes in medical opinions* as I have acknowledged, have upon a *physician's reputation*; but, *small*, indeed, would I consider this *total sacrifice of mine*, should it avert the *evils* which are connected with a belief in the *importation* of pestilential diseases," &c.

The following declaration, Dr. RUSH inserted in the preface to one of the editions of his Medical Inquiries and Observations; "In the 4th volume, the reader will find a recantation of the author's former opinions of the Yellow Fever spreading by contagion. He begs *parginenses* of the friends of science and humanity, if the publication of that opinion has had any influence in increasing the *misery* and *mortality* attendant upon that disease. Indeed, such is the *pain he feels in recollecting that he ever entertained or propagated it*, that it will *long*, and perhaps, *always*, *deprive him of that pleasure* he might otherwise have derived, from a review of his attempts to fulfil the public duties of his situation."

Such a public recantation of error, is characteristic of a man who bore the character of the great and good RUSH. Would that we had fewer examples, of the pride of opinion leading men to sacrifice truth and justice, to contrast with this magnanimous and noble offering, at the shrine of reason and integrity. "This

conviction," observes BANCROFT, in speaking of this act, "was not made precipitantly or captiously, but with slow and cautious deliberations; not from the impulse of former prejudice, but in direct opposition to it; not from a vain desire of appearing to be infallible, by vindicating opinions inconsiderately promulgated, but with a *conscientious* and humble (I had almost said humiliating) purpose of condemning and renouncing such opinions."

The following are some extracts, from Drs. MILLER, MITCHELL, and ROGERS, in relation to Yellow Fever in New York. In speaking of the prevalence of the disease in that city, in the year 1803, the two former gentlemen state: "The first public alarm took place from some deaths about the Coffee-house *Slip*, and in that neighborhood, where, from the number and malignity of the cases, the atmosphere must have been charged with miasmata of great virulence." "Many aged and young persons, whose condition imposed confinement in their houses, without the occurrence of any preceding case in their families, were attacked with the disease in its most virulent form. Multitudes also took the disease, who had not, previously, approached any sick person, any suspected vessel, or any families allowed to be imbued with contagion. One person was attacked in the debtor's prison, who, for three months before, had not been beyond its walls, and no other person was previously or subsequently affected with the disease."

"The summer of 1805," observes Dr. MILLER, "was remarkable for the *duration*, as well as the *intensity*, of heat along the whole of our coast; and the consequence was, not only that nearly all the atlantic cities were visited with pestilence, but that, in several of them, it made its appearance in forty-eight hours, or nearly of the *same time*, an occurrence which cannot be explained on the contingency of contagion." He further states, "it appears from the records of this Epidemic, that there were thirty-nine streets of the city, most of which continued to be crowded with inhabitants, in which only a case occurred in each; and, in the mass of six hundred cases, reported to the Board of Health, there were only *thirty-five* houses in which more than a *single case* was found."

The following is the evidence of Dr. ROGERS, the health officer, who made "a long, minute and satisfactory report to

the Board of Health of every vessel and every circumstance, connected with the *possibility* of the *importation* of the disease." "I have now clearly shown," he observes, "as far as negative proof can go, that whatever might have been the cause of the late Epidemic, it did not arise from any neglect of duty at the *quarantine ground*, *nor did it come through that channel*."

Your Committee will conclude these extracts, which we think, place the matter of contagion beyond all dispute, by simply giving two more from Dr. DAVIDGE's notes to BANCROFT on Fevers. "Dr. MILLER, of New-York, in his excellent Essay on Yellow Fever, reports a communication, highly important and valuable, by Mr. ANDREW ELLICOTT, a gentleman of character, both as regards ability to observe, and integrity to communicate such matter, as his enlightened mind might deem worthy of communication and public notice."—"The village of Galliopolis, (says this judicious observer,) is a few miles below the great Kenhaway on the west side of the Ohio River, and situated on a high bank. It is inhabited by a number of miserable French families. Many of the inhabitants this season fell victims to Yellow Fever. The mortal cases were generally attended with black vomiting. This disorder certainly originated in the Town, and, in all probability, from the filthiness of the inhabitants, added to an unusual quantity of *animal* and *vegetable* putrefaction in a number of small ponds and marshes within the village. The fever could not have been taken there from the Atlantic States, as my boat was the first that descended the river after the fall of the water in the spring. Neither could it have been taken from New-Orleans, as there is no communication up the river, at that season of the year, from the latter to the former of those places.* Moreover, the distance is so great, that a boat would not have time to ascend the river, after the disorder appeared that year in New-Orleans, before the winter could set in." Dr. DAVIDGE, also mentions the following fact communicated by Dr. WATKINS, a man of distinguished talents and acute observation.—"There is a village, (says the doctor) called New Design, about

* This was before the introduction of Steam Boats.

fifteen miles from the Mississippi, and twenty from St. Louis, containing about fifty houses, and two hundred souls. It is on high ground, but surrounded by ponds. In 1797, the Yellow Fever carried off fifty-seven of the inhabitants, or more than a fourth. No person had arrived at that village, from any part of the country, where this fever had prevailed, for more than twelve months preceding. Our informant resided in the village at the time, and having seen the disease in Philadelphia, he declares it to be the same that prevailed at New Design. He also mentions an Indian Village depopulated by the same disease, two or three years before."

The theory of the second class, who, "assume the ground, that our atmosphere was in a vitiated state, and that the simple introduction of a case, imparted an epidemic constitution to this vitiated atmosphere, and thus spread the disease," must share the fate of the first. Indeed, if such an occurrence was possible, which is contradicted by all the facts connected with the history of miasmatic diseases,—it will be impossible to account for the introduction and spread of the prevailing fever in this manner. The case at the Eagle & Phoenix Hotel, did not occur until the 31st of July, and the patient was well, according to the statement of Dr. CUNNINGHAM, on the 8th of August. How was it possible for this case, according to the laws which ordinarily govern the natural sequences of cause and effect, to have produced such a vitiated state of the atmosphere, as to have caused the irruption of a general epidemic in so short a time? Your Committee would here beg you to refer to the facts, before stated, in relation to the early cases of the prevailing fever. Making due allowance for the time necessary to operate upon the atmosphere, and then upon the human system, the absurdity of the supposition must at once be evident.

But again; how comes it, that the cases near the upper market, introduced at an earlier date, did not develope the cause of the disease in the atmosphere of that part of the city? It is a notorious fact, that it was late in the season before the disease prevailed generally, in that part of the city; and its

progress could be gradually and distinctly traced, from day to day, from its original locality. These facts are entirely irreconcilable with any such doctrine. Professor GEDDINGS, in answer to the second query, in the correspondence before alluded to—"Do you believe that a state of the atmosphere can be produced, capable of rendering the disease epidemic in a city, by the simple introduction of cases from other cities?" observes, "In reply to this query, I must likewise state, that I have never witnessed a single fact calculated to favor the belief, that the disease can be rendered epidemic in a city by the introduction of cases from other cities. Such an effect I hold to be impossible, in any other way than by the agency of, either, common causes, or contagion. Believing, therefore, that contagion does not exist, my conviction is, that where the disease prevails as an epidemic, it owes this character entirely to common causes, operating through the medium of the atmosphere of the place. A foul ship arriving in port, having Yellow Fever on board, may impart that disease to persons exposed to its atmosphere, but the disease, produced under such circumstance, will never spread through the community, or, in other words, assume the form of an epidemic."

The principle which vitiated our atmosphere, was the cause of the disease; that, without which, the Epidemic could have had no existence, and which, did not require the introduction of foreign cases to produce an explosion. The torch had been applied before the introduction of the foreign cases, and was, silently, and unobserved by the multitude, performing its work of death and desolation. Your Committee deem it unnecessary to dwell longer upon this point, as facts most conclusively show, that the supposition is founded in error.—Indeed, cases of Yellow Fever have been brought into our city, almost every season, in which it has prevailed in Charleston, and hitherto we have heard nothing of their imparting an epidemic constitution to our atmosphere. The same can be said of other parts of our State.

Having investigated the theories of the first and second class of believers, in the importation of the cause of the late

Epidemic, your Committee will now pass to the last; namely, those who believe that it was introduced by West India fruit. This is the most absurd supposition of them all. Admitting this to be possible, what city on the globe, whose inhabitants indulge in the luxuries of the West-Indies, would escape an annual visitation from this pestilence? The introduction of the fruit was not sufficiently early to account for the origin of the disease. Furthermore, this fruit was sold in the upper, as well as the lower, part of the city, and certainly, if it was capable of producing the disease in one section, why not to an equal extent in the other parts of the city? Your Committee find, on examining the books of Messrs. W. E. & J. U. Jackson, Auctioneers, that they sold, at auction, on the 31st July, two crates of West-India fruit, most of which was in a state of decay. Some of this fruit remained several days at the Rail-Road Depot in Hamburg, before it was brought to Augusta. Now, how comes it that the infection was not left in Hamburg; and particularly at the Rail-Road Depot? And further, if the disease was introduced in this manner, certainly, the neighborhood of the Auction Store, of the Messrs. Jacksons, should have been the very focus of its operation, as it is to be presumed that the multitude, usually collected on such occasions, both "hauled, touched and tasted" this contaminated, if not forbidden, fruit. The unreasonableness of the supposition is so evident, that your Committee, deem it entirely unnecessary to spend more time upon this alleged cause, and will therefore, pass, immediately, to the second division of the subject, viz :

II. Did it arise from local causes; and if so, what were those causes?

In view of the foregoing facts and observations, and after a minute investigation of every circumstance connected with the commencement, progress and termination of the late Epidemic, your Committee feel no hesitation in pronouncing the cause to be of local origin, and will proceed, directly, to answer the second part of the second query—"What were those causes?"

In commencing our investigations upon this part of the subject, the attention of your Committee has been drawn to that part of the city where the first deaths, that excited public alarm, occurred. From the fatality of the Fever in that quarter, whilst the rest of the city remained comparatively healthy, public attention was directed to that spot, exclusively, and there, it was supposed, might be found the hidden cause. The belief, that the disease originated in, and was confined to, the vicinity alluded to, led to various opinions as to its cause. It was supposed that the lots in that neighborhood were in a peculiarly filthy condition at that time; but an examination made by two of the members of this Committee, in August last, satisfied them that there was no greater want of cleanliness there, than in quarters where disease did not then prevail. The only local cause peculiar to that section, except one hereafter to be mentioned, was a mass of decayed cotton-seed, and to this, from a want of a knowledge of *all* the facts in relation to another alleged source of the disease, which could not be procured in the short space of twenty-four hours, the time allowed for investigation, the disease was mainly attributed. Subsequent experience and investigation have satisfied your Committee, that other sources must be looked to for the cause of the late Epidemic—The cotton-seed, though decidedly prejudicial to health, performed but a subordinate part in the production of disease in the neighborhood referred to.

It has also been stated, that the lots, on the square lying north-west of the market, are lower than the surrounding streets, and that, in consequence, they are receptacles for water, and such filth as the rains may carry into them. Whatever agency such a condition of those lots may have in producing disease, under favoring circumstances, your Committee are fully satisfied, that, in the present instance, we cannot refer to it as a cause, for this depression of surface has always existed, without hitherto affecting the health of the inhabitants; and, moreover, the past season was unusually dry, which prevented any injurious consequences, which might have arisen under an opposite state of the weather. Your Committee deem it needless to enter into any elaborate ex-

amination of these, and other, opinions touching the origin of the Fever in the lower part of the second ward, a sufficient answer having been found in facts disclosed in another part of this report.

The low state of the river, by which a considerable portion of its bed was exposed to the action of the sun's rays, has also been referred to as the cause of the late Epidemic. The soil, exposed by the low state of the river, is not of that nature from which miasmata are usually generated. It is a beautiful, sandy gravel, containing scarcely any remains of either animal or vegetable matter. There were two portions of the bed of the river exposed—a large bar immediately under the lower bridge, close to the Carolina shore—another extending from below the old bridge posts, nearly to the Western Wharf, near the Georgia shore—If these had been the cause of the disease, why was it at first confined to so small a space? Again, in 1830, the river was nearly as low as it was during the past summer, and the bar on the Georgia side, presented almost as large a surface for the action of the solar heat, and yet our city was never blest with a greater degree of health than during that summer and autumn. Moreover, if this was the cause of the peculiar Epidemic of the past season, it should have acted as powerfully above and below Augusta, as numerous large bars were exposed, particularly down the river. On the contrary, the river planters, without a single exception, so far as your Committee has conversed with them, state that their plantations have rarely enjoyed such a season of general health. One of your Committee advised the different Steam Boat Companies, in which he was professionally employed, so far as they could, to keep their idle boat hands on the river, fifteen or twenty miles below the city. Those who were able, followed the advice; and, with few exceptions, they were perfectly healthy; those few were detected in visiting the city clandestinely.

A lot of damaged bacon in a store just above the Eagle and Phoenix Hotel, was thought, by some, to have caused the disease—This was, also, examined by a number of medical

men, in the month of August, and though extremely offensive, they were of the opinion that it had no connection, whatever, with the active cause of the late Epidemic. In this opinion, your Committee fully concurs, as the disease prevailed some time in other parts of this city, before it reached as high up as the Eagle & Phoenix Hotel, and the removal of this alleged cause produced no abatement whatever in its violence.

Some have accused the extensive growth of the "*Morus Multicaulis*," of being the cause of our late afflictions. With what show of reason, your Committee is unable to discover. It is sufficient to say, that the western part of the city, which escaped the disease until late in the season, is the most thickly planted, with this peculiar growth. The same objections, indeed, cannot be brought against this, as may be urged against the ordinary products of a vegetable garden, as not a leaf was disturbed, except for feeding a few worms, in the spring and early part of the summer, until the black frost, on the 8th November.

Your Committee deem it unnecessary to enter further into a discussion of the various suggestions which have been thrown out, touching the cause of the disease in question—Indeed, Augusta and its vicinity, have, since the foundation of the former, been successively undergoing the usual changes from a swampy soil to its present state, and yet no such Epidemic has been the result. Other sources must be looked to, and your Committee will now proceed to examine, what is commonly called the "Upper Trash Wharf," situated between Elbert and Lincoln streets," which we believe to be truly, the "*fens et origo mali*."

As this deposit has been accumulating for a number of years, and no such Epidemic has previously visited our city, your Committee deem it important to say, that its agency in the production of disease this season, arose from a concurrence of circumstances, which we shall now proceed to examine.

First, let us examine the origin, progress and nature of this accumulation, before noticing the combination of causes that acted upon it, and rendered it the source of those pestiferous

ERRATA.

14, line 27 from the top, read, *forgiveness*, instead of "*parginenses*."

19, line 23 from the top, read handled, instead of "hauled."

exhalations that hovered, like the angel of death, over our devoted city.

On the 4th of April, 1834, the following Resolution was passed in Council :

“Resolved, That the Street Committee be authorised to have made, a slide or platform, on the river bank, for the purpose of throwing the dirt and rubbish collected by the Street Officer, clear of the bank, into the river.”

The platform was erected on piling; it projected one hundred and ten feet into the river, from the edge of the bank, and was forty-five feet high, from the bed of the river. The Street Officer's carts, laden with all the animal and vegetable matter, collected from the different lots and yards of the city, daily, were drawn to the end and sides of this platform, and emptied into the river. The dead animals found in the city, were also thrown from the same place. Thus commenced this accumulation in 1834. The Street Committee, for some time after the construction of the work, was in the habit of having this collection cleared away, down to the water's edge, whenever it accumulated above it. This precaution was, however, finally neglected, and an old boat lodged against the work, which prevented the water from sweeping under the platform, and the mass was suffered to accumulate to upwards of 200,000 cubic feet, when it attracted the notice of numerous citizens and the City Council—It had arrived to such a height, that the workmen, who commenced levelling it, in May last, could step from the platform on to the mass.

We are told by the most acute observers, that malaria, of the most virulent nature, arises “from vegetable and animal matter, more especially the former, in a state of dissolution.” What a magazine was here formed! It only required, that its interior should be exposed, to the action of the summer sun, to develope the hidden ills of this crucible of pestilence and death.

Your Committee will now proceed to notice, the combination of causes, that acted upon this mass. On the 13th of April, 1839, the following resolution was passed by Council.

"*Resolved*, That the Committee on the river bank and wharf, be instructed to have the trash, in front of the Street Officer's wharf, removed, and make arrangements to prevent its accumulation there in future."

On the 4th of May, following, a contract was entered into with Mr. Spencer, for the performance of the work. On the 8th of the same month, he commenced operations, and finished on the 29th. The removal was only partial. It consisted in levelling the mass by horizontal sections, and throwing it into the river, as far as it could be done. A further levelling was made by the same individual, between the 26th of June, and 2d of July. During the operation of the workmen, on the mass, as they penetrated deeper into the interior, *the heat evolved was so great that they were compelled to desist from their work, for two hours at a time, so as to suffer it to cool sufficiently*, to enable them to resume their labor, although they wore thick shoes.

After the operations, under the direction of the river bank committee, had ceased, there still remained, of the original accumulation, exposed to the influence of the sun, upwards of 117,000 cubic feet, which had been concealed by the superincumbent mass for years, and now, for the first time, since its deposit, saw the light of day. The above estimates are the results of an accurate survey made by a competent Engineer, which together with a diagram is herewith submitted. In connection with these operations, the river, which was extremely low, continued to fall, and gradually exposed that portion of the base of the mass, which had previously been under water; a large extent, which had been swept off, from time to time, and deposited along the margin of the bank, in the direction of Mrs. Gardiner's house, was also exposed, as the river gradually receded.

From the 10th of June, to the last of August, the thermometer in the shade at 3 o'clock, P. M. ranged from 75° to 96°. The dryness of the summer was unparalleled; at one time there was not even a shower of rain, for 71 successive days.

Did the limits of this report permit, your Committee could

cite numerous instances, in which similar accumulations have produced the most malignant forms of fevers. These must be familiar to every one who has paid the least attention to the history of epidemic fevers, and the subject of miasmatic exhalations. After having given the combination of causes, that acted upon the accumulation of vegetable and animal matter, your Committee will conclude by offering the concurrent testimony of facts, which point, directly, to this deposit, as the "*causa causarum*"—the source whence the cause of the late Epidemic originated.

In the first part of this report, it is stated that Mrs. Thomas Gardner's family was attacked with Fever about the 8th of June—The first leveling of the "Trash Wharf" commenced on the 8th, and ended on the 29th of May—Mrs. Gardner's house is a short distance below the "Trash Wharf," and the bank of the river, between the two points, has been so encroached upon by the river, that they both project, as it were, some distance, forming prominent points. Up to the time her family was attacked, the wind prevailed from the west and north-west, which brought her residence in the direct line of the wind from this deposit of filth.

John McGuire, the case mentioned as occurring in Dr. CUNNINGHAM'S practice, on the 5th of July, was a laborer engaged in the work of leveling the accumulation, so often referred to. The son of Mrs. Bush, also referred to in another part of this report, as having been taken on the same day, took shelter, from a shower of rain, under the platform of the "Trash Wharf," a few days previous to his illness. Up to the 30th of June, the wind continued to prevail from the west and north-west. After this, to the 1st November, it prevailed, steadily, from the east and north-east, occasionally varying for a short time, only, from the west and north-west, and, from the 1st to the 12th of September, from the south-east. The range of the thermometer and the direction of the winds, are taken from a diary of the weather, kept by an intelligent gentleman of the city, without any reference, directly, to the prevailing Epidemic.

Directly above the "Trash Wharf," there are no residences immediately on the river bank, except Mr. A. McKenzie's and Mrs. Cowling's, until you reach nearly to the lower bridge. Between Mrs. Cowling's and the first house below the bridge, there is an extensive vacant lot—It will be seen upon reference to a map of the city, that the north-east wind carried the exhalations from the "Trash Wharf," directly over this vacant lot, and caused them to settle upon that part of Centre and Reynold-streets, where the disease, at first, prevailed with the greatest degree of violence. The continuance of the north-east winds occasionally shifting from the north and north-west, will account for the gradual spread of the miasma to other parts of the city. Hamburg, escaped entirely, for some time, but after the wind had prevailed from the south-east, from the first to the 12th of September, numerous cases occurred in that town.

Some may ask, why the occupants of the houses of Mr. M'Kenzie and Mrs. Cowling, were not the first taken with the disease? Malaria generally follows the direction of the prevailing winds, and these houses appear to have been protected, at first, by this fact, and the high bank of the river, immediately at the "Trash Wharf," though it was not long, after the commencement of the Epidemic, before they were most violently assailed. In further explanation of this point, your Committee would bring to your notice, the following fact, observed by many at the time. When it was determined to commence covering that part of the mass, left after the leveling had been finished, a number of kilns of tar and pine knots were set on fire, immediately on the mass, before commencing the work. The smoke from these kilns did not ascend perpendicularly into the atmosphere, but was carried, by the wind, up and under the bank, until it came opposite the vacant lot alluded to above, when it rose and settled upon the very section in which the disease first displayed itself, in its most virulent form; after which, it was gradually diffused throughout the city. The fact was noticed, not by one or two, but by a number of individuals at the time. The direction in which

the disease had gradually progressed, could be clearly traced by the smoke conveyed, by the prevailing winds, from these kilns.

It may be asked, why did not this mass send forth its pestiferous exhalations before? In reply, we would answer, that fresh materials were constantly deposited, and a crust was thus formed, which acted as a temporary security, but as soon as the interior of the mass was exposed, its full effects were developed.

Your Committee will refer to another point, which may be brought forward by those who do not coincide with us as to the cause of the disease in question. The question may be asked, "after the remaining part of the deposit was covered up by fresh earth, why did not the disease then cease?" The work of covering was not effectually completed until the 21st of September—The first covering commenced on the 28th of August, and after its completion, on the 7th of September, a large fishure was found to exist in it; the work was, consequently, resumed on the 12th, and finally completed on the 21st of September. The covering commenced too late, even if it had been effectual in arresting the further generation of the miasmatic poison, to suddenly arrest the disease. The atmosphere was fully impregnated with morbid agent, and nothing occurred to neutralise its influence until the first black frost, on the 8th of November. The covering did not exceed an average of more than four or five feet; and, if six feet of earth is required to prevent exhalations from a dead body, your Committee will not undertake to say how many feet would be necessary to arrest miasmatic exhalations from 117,000 cubic feet of vegetable and animal putrefaction. Besides that part of the decayed matter, which had floated down and lodged on the exposed points of the bed of the river below the "Trash Wharf," was not covered, but continued to give out pestiferous exhalations.

Your Committee will not detain you longer, to notice other supposed causes referred, to by some, such as the wharves, old buildings, and the like—all of which may, under certain circumstances, become the source of disease. After the facts disclosed in relation to this *immense accumulation* of the *peculiar materials* for the production of *malaria*, the *combination* of

causes which acted upon it, the *concurrent testimony of facts*, and the limits to which the disease was at first circumscribed, *immediately in the vicinity* of this accumulation, your Committee deem it unnecessary to seek for more distant and questionable sources, as that, already named, is adequate to the production of the most direful pestilence.

Thus, your Committee has brought to a close, the laborious task which has been assigned it. We have endeavored, by the most patient investigation, and with a sincere and conscientious desire to arrive at truth, to trace out the cause of an unparalleled affliction to our city, hitherto as remarkable for health, as for its rapid growth in commercial importance—We have sought to censure no one—Truth has been our aim—and time must show whether or not we have labored in vain.

In conclusion, we would submit the following Resolutions for your consideration :

1. *Resolved*, That from the facts disclosed in the foregoing Report, we are of the opinion that the cause of the late Epidemic was not introduced into our city, in any manner whatever, from foreign sources ; nor do we believe the disease to have exhibited, in the slightest degree, a contagious nature.

2. *Resolved*, That in our opinion, the cause of the late Epidemic arose from the accumulation, at the upper "Trash Wharf," between Lincoln and Elbert streets, of upwards of 200,000 cubic feet of vegetable and animal matter, collected from the lots and streets of the city, since the year 1834, which was opened, and exposed to the action of the sun, in the months of May and June last.

3. *Resolved*, That we most earnestly urge upon our fellow-citizens, the necessity of having this fountain of miasmata, and other similar collections, thoroughly and effectually eradicated during the present winter ; and also, the importance of having a system devised, the faithful execution of which, shall, in future, secure our inhabitants from the direful effects of like accumulations in our vicinity, and the deleterious consequences arising from a general neglect of cleanliness, which, for some years past, has been too common in our city, owing to its unprecedented state of health.

APPENDIX.

" AUGUSTA, Oct. 28th, 1839.

" DEAR SIR—You are doubtless aware, that a dreadful scourge has visited our city during the past summer and autumn. I believe it is now generally admitted to have been '*Yellow Fever*,' or what is termed, in your city, '*Stranger's Fever*.'

" The irruption of a malignant disease in a community, unaccustomed to such a visitation, usually adds to its direful effects upon the lives of the people, a panic destructive of all commercial prosperity and enterprise. These effects are more peculiarly felt, when the belief, in the contagiousness of the disease, becomes prevalent; and, the combined interest that centre in a community like ours, as well as those ties that bind our City to her sisters of the Atlantic, render it necessary that facts should be clearly stated, and truth be permitted to assert her control, where false reasoning and ungrounded apprehensions have produced confusion and dismay.

" Feeling assured that the importance of the subject, at least to this City and your own, will be a sufficient apology for troubling you with this communication, I, respectfully, beg that you will, as soon as convenient, return me an answer to the following questions :

" 1st. Do you consider the fever commonly called "*Yellow Fever*," or what is termed "*Strangers Fever*," in your city, a contagious disease ?

" 2d Do you believe that a state of the atmosphere can be produced, capable of rendering the disease epidemic in a city, by the simple introduction of cases from other cities ?

" 3d. Do you consider the disease, as it prevailed in your City, during the past summer, to have exhibited, in any degree, a contagious nature ?

" I am, very respectfully,

" Your obedient serv't,

" F. M. ROBERTSON.

" To E. GEDDINGS, M. D., Charleston, S. C."

" CHARLESTON, Nov. 10th, 1839.

" MY DEAR SIR—Your letter, in which you request my opinion in relation to the contagiousness of *Yellow*, or *Stranger's Fever*, has been several days before me. Constant occupation, however, has rendered it impossible for me to reply at an earlier period. This I shall now do as briefly as possible, without attempting to furnish the facts or arguments upon which my opinion has been formed.

"Query 1—' Do you consider the fever commonly called *Yellow Fever*, or what is termed *Stranger's Fever* in your city, a contagious disease?"

"Answer. In the whole course of my observation, in several epidemic visitations of Yellow, or Stranger's Fever, in this city, I have not witnessed a single fact favorable to the doctrine of contagion. On the contrary, facts, almost without number, have fallen under my observation, all producing the fullest conviction in my mind, that the disease is *not contagious*.

"Query 2—' Do you believe that a state of the atmosphere can be produced, capable of rendering the disease epidemic in a city, by the simple introduction of cases from other cities?"

"Answer—In reply to this query, I must likewise state, that I have never witnessed a single fact calculated to favor the belief that the disease can be rendered epidemic in a city, by the introduction of cases from other cities. Such an effect I hold to be impossible in any other way, than by the agency of either common causes, or contagion. Believing, therefore, that contagion does not exist, my conviction is, that when the disease prevails as an epidemic, it owes this character entirely to common causes, operating through the medium of the atmosphere of the place. A ship arriving in port, having 'yellow fever' on board, may impart that disease to persons exposed to its atmosphere; but the disease produced under such circumstances, will never spread through the community, or in other words, assume the form of an epidemic.

"Query 3—' Do you consider the disease as it prevailed in your city, during the past summer, to have exhibited, in any degree, a contagious nature?"

"Answer. I have never, either in the epidemic of the past summer, or of those which preceded it, observed a single fact or circumstance favorable to the belief, in any contagious property.

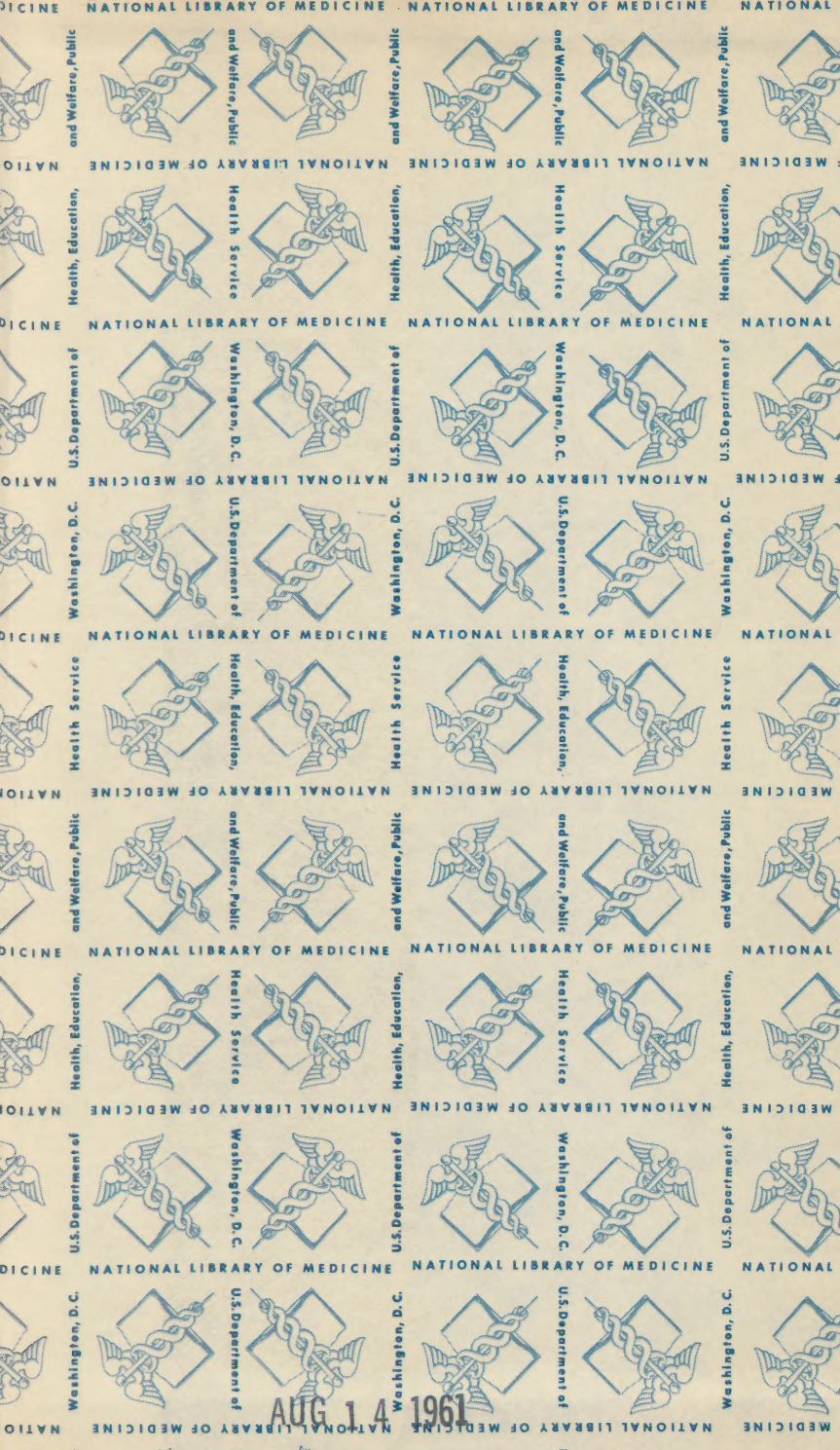
"On the contrary, I have witnessed the most free and unlimited intercourse between the sick, and those who might be considered subjects for the disease, without the latter being attacked.

"I have the honor to be, very respectfully, yours,

"E. GEDDINGS.

"F. M. ROBERTSON, M. D., Augusta, Ga."





AUG 14 1961

